## AMENDMENTS TO THE CLAIMS

Please amend claim 18 and add claims 19 and 20 as follows. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented)  A method for analyzing motion between two images, comprising:

generating a single channel image for each of two input images according to a function that measures, for each pixel, occurrence of a desired characteristic, other than luminance alone, in the input images at each pixel location to provide a single value for each output pixel in the single channel image from a range of values that represent a likelihood of the occurrence of the desired characteristic; and

computing an estimate of motion of the desired characteristic between the two images using a gradient-based method and using the single channel images generated for the two input images and using as a constraint that a total of the desired characteristic is constant from one image to a next image.

2. (Original) The method of claim 1, wherein the desired characteristic is edge magnitude.

3. (Original) The method of claim 1, wherein the desired characteristic is proximity to a color.

4. (Original) The method of claim 1, further comprising:

processing the input images according to the estimate of motion.

5. (Previously Presented)  The method of claim 4, further comprising:

using the estimate of motion to interpolate between the two images.

6. (Original) The method of claim 5, wherein the desired characteristic is edge magnitude.

7. (Original) The method of claim 5, wherein the desired characteristic is proximity to a color.

8. (Previously Presented)  An apparatus for analyzing motion between two images, comprising:

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means for generating a single channel image for each of two input images according to a function that measures, for each pixel, occurrence of a desired characteristic, other than luminance alone, in the input images at each pixel location to provide a single value for each output pixel in the single channel image from a range of values that represent a likelihood of the occurrence of the desired characteristic; and

means for computing an estimate of motion of the desired characteristic between the two images using a gradient-based method and using the single channel images generated for the two input images and using as a constraint that a total of the desired characteristic is constant from one image to a next image.

9. (Original) The apparatus of claim 8, wherein the desired characteristic is edge magnitude.

10. (Original) The apparatus of claim 8, wherein the desired characteristic is proximity to a color.

11. (Original) The apparatus of claim 8, further comprising:
means for processing the input images according to the estimate of motion.

12. (Previously Presented) The apparatus of claim 11, further comprising:
        means for generating several images interpolate between the two images.

13. (Original) The apparatus of claim 11, wherein the desired characteristic is edge magnitude.

14. (Previously Presented) The apparatus of claim 11, wherein the desired characteristic is proximity to a color.

15-16. Cancelled.

17. (Previously Presented) The method of claim 1, wherein the gradient-based method comprises computing optical flow for the single channel images.

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18. (Currently Amended) The ~~method~~ apparatus of claim 8, wherein the means for computing using a gradient-based method comprises means for computing optical flow for the single channel images.

19. (New) The method of claim 1, wherein the gradient-based method comprises computing, for each pixel in an image, a vector that describes the motion for the pixel from one image to the next.

20. (New) The apparatus of claim 8, wherein the means for computing using a gradient-based method comprises means for computing, for each pixel in an image, a vector that describes the motion for the pixel from one image to the next.

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